

CLASSIFIED MESSAGE

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 UNIT :
 EXT :
 DATE : 27 APR 70

TOP SECRET

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25X1

SUBJECT: B/W SEPARATION PRINTS OF MSN 1108 AND

25X1

1. REF. MSG. REQUESTED EVALUATE SPECIAL B/W REPRODUCTIONS

25X1

PRODUCED BY FROM S0-242 OF MSNS 1108

25X1

2. FILMS/FILTERS USED TO PRODUCE THE SEPARATION PRINTS WERE:

A. 2ND GENERATION DIRECT REVERSAL PRINTS, UTILIZING 5468 FILM,
 WERE PROVIDED FROM THE S0-242 OF MSNS 1108 FILM TYPE
 5468 IS ORTHOCHROMATIC AND SINCE IT WAS EXPOSED THROUGH A W-12
 YELLOW FILTER, IT REPRESENTS THE GREEN INFO (MAGENTA DYE LAYER).

25X1

B. A 3RD GENERATION PRODUCT - 2430 FILM - WAS PRODUCED FROM BOTH
 MSNS VIA A 3404 INTERNEGATIVE (EXPOSED THROUGH A W-93 GREEN FILTER).
 THE 2430 PRODUCT ALSO REPRESENTS THE GREEN INFO (MAGENTA DYE LAYER).

C. IN ADDITION, A 3RD GENERATION PRODUCT - 2430 FILM - WAS
 PRODUCED FROM THE S0-242 OF MSN 1108 VIA A 3404 INTERNEGATIVE (EXPOSED
 THROUGH A W-92 RED FILTER). THE 2430 PRODUCT REPRESENTS THE RED INFO
 (CYAN DYE LAYER). THIS PRINTING TECHNIQUE WAS NOT USED FOR

25X1

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BECAUSE OF THE DIFFERENCE IN LENS CHARACTERISTICS OF THE TWO SYSTEMS.

3. THE PRINCIPAL OBJECTIVE OF THIS EXPERIMENT WAS TO DETERMINE WHICH REPRODUCTION PROVIDES THE MOST INFO FROM A PI STANDPOINT. THEREFORE, A PSYCHOPHYSICAL EXPERIMENT WAS CONDUCTED WITH PHOTO SCIENTISTS AND PI'S. THE PROCEDURES OF THIS EXPERIMENT ARE NOT PRESENTED HEREIN FOR THE SAKE OF BREVITY; HOWEVER, ADDITIONAL DATA WILL BE MADE AVAILABLE UPON REQUEST. THE SIGNIFICANT CONCLUSIONS OF THE EXPERIMENT ARE SUMMARIZED BELOW:

25X1

A. MSN 1108

(1) THE 3RD GENERATION 2430 POSITIVE WHICH REPRESENTS THE RED LAYER INFO IS THE 1ST PREFERENCE.

(2) THE 3RD GENERATION 2430 POSITIVE WHICH REPRESENTS THE GREEN LAYER INFO IS THE 2ND PREFERENCE.

(3) THE 2ND GENERATION 5468 POSITIVE WHICH REPRESENTS THE GREEN LAYER INFO IS THE 3RD PREFERENCE.

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4. THE ABOVE CONCLUSIONS, ALTHOUGH STRAIGHTFORWARD, DESERVE SOME CLARIFICATION BECAUSE OF THE INHERENT SUPERIOR RESOLUTION OF FILM TYPE 5468 COMPARED TO 2430. IN ADDITION, SOME OBSERVERS STATED THAT AT TIMES MINUTE DETAIL IS DETECTABLE IN THE 5468 MATERIAL WHICH CANNOT BE DETECTED IN THE 2430 REPRODUCTION. THE CONTROLLING FACTOR HOWEVER, IS ATTRIBUTED TO THE SOMEWHAT SUPERIOR CONTRAST AND TONAL RENDITION CAPABILITIES OF THE 2430 MATERIAL COMPARED TO 5468, AND WHEN THE OBSERVERS WERE FORCED TO SELECT A PARTICULAR COPY, THE 3RD GENERATION MATERIAL WAS PREFERRED.

5. IN VIEW OF THESE RESULTS, IT IS RECOMMENDED THAT OPTIMIZED 2430 FILM REPRODUCTIONS (BASED ON THE CONCLUSIONS IN PARAGRAPH 2) BE PROVIDED FROM THE ORIGINAL COLOR OF FUTURE MSNS AS A SUPPLEMENT TO NORMAL COLOR REPRODUCTIONS. THE 5468 FILM DESERVES CONSIDERATION FOR LIMITED REPRODUCTIONS OF SPECIALIZED TARGETS WHERE OPTIMUM MINUTE DETAIL IS REQUIRED.

END OF MESSAGE

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Approved For Release 2008/10/28 : CIA-RDP78B03824A000300040014-5